

# **CHILTON'S** **TRUCK and VAN** **REPAIR MANUAL** **1982-88**

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1982-88

REPAIR

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2. If necessary, remove the coolant recovery tank. Remove the power antenna, if equipped.

3. Remove the power lead from the blower motor assembly. Remove the five retaining screws and remove the blower motor from the housing.

4. Separate the wheel and motor assembly as required.

5. Installation is the reverse of the removal procedure. Renew the blower motor flange sealer, as required.

## With Air Conditioning

### S-SERIES

1. Disconnect the battery ground cable.

2. Remove the vacuum tank assembly, if required. Disconnect the blower motor electrical connections.

3. Remove the blower motor attaching screws. Remove the blower motor from the vehicle.

4. Installation is the reverse of the removal procedure.

### ASTRO/SAFARI

1. Disconnect the negative battery cable.

2. Remove the engine coolant bottle. Remove the two bolts from the windshield washer bottle and position the assembly out of the way.

3. Disconnect the electrical connections from the heater blower assembly. Remove the blower motor relay bracket, as required.

4. Remove the blower motor retaining screws. Remove the heater motor from the vehicle.

5. Installation is the reverse of the removal procedure. Transfer the blower motor squirrel cage, as required. Upon installation align the motor assembly with the alignment pin.

### PICK-UP, BLAZER/JIMMY AND SUBURBAN

1. Disconnect the negative battery cable.

2. Disconnect the blower motor electrical wire and the ground wire.

3. Disconnect the blower motor cooling tube.

4. Remove the blower to case retaining screws. Remove the blower motor assembly.

5. Installation is the reverse of the removal procedure.

### VAN

1. Disconnect the negative battery cable.

2. Vehicles equipped with a diesel engine have extra insulation around the blower motor and evaporator core. The parking lamp may have to be removed along with the coolant recovery tank. Remove the retaining screws

and remove the insulation through the hood opening.

3. Remove the coolant recovery tank. Remove the power antenna, if equipped.

4. Disconnect the blower motor electrical connector.

5. Remove the retaining screws from the blower motor to housing. Remove the blower motor.

6. Installation is the reverse of the removal procedure. Replace the sealer on the motor flange as required.

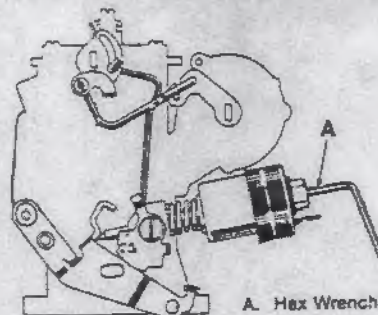
## FUEL SYSTEM

Refer to the Unit Overhaul Section as required.

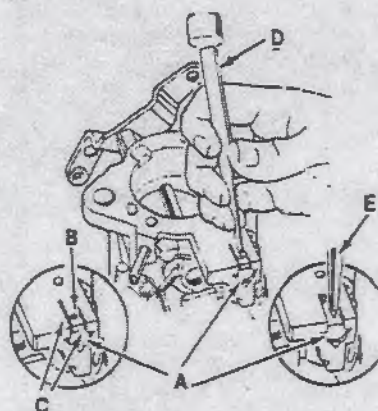
### Carburetor

#### REMOVAL & INSTALLATION

1. Disconnect the negative battery cable. Properly relieve the fuel pump pressure. Remove the air cleaner.

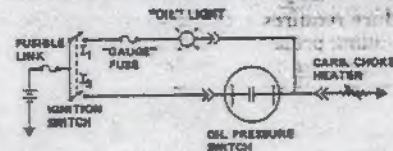


Light duty emission vehicles base idle adjustment

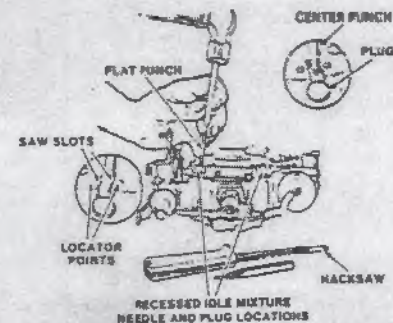


- A. Idle Mixture Needle Plug
- B. Locator Point
- C. Hacksaw Slots
- D. Flat Punch
- E. Center Punch

Removing idle mixture screws—1987 light duty emission vehicles



Electric choke heater wiring schematic



Removing idle mixture screws—1984-86 light duty emission vehicles

2. Disconnect and plug the fuel lines. Disconnect the necessary vacuum lines and electrical connections.

3. Disconnect the accelerator linkage. Disconnect the transmission linkage, as required.

4. Remove the carburetor retaining bolts. Remove the carburetor and gasket from the engine.

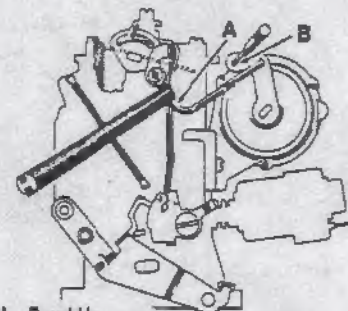
5. Installation is the reverse of the removal procedure. Be sure to use a new carburetor base gasket.

#### ADJUSTMENTS

##### Idle Mixture Light Duty Emission Vehicles

Idle mixture needles were preset and sealed at the factory. Idle mixture should only be adjusted during major carburetor overhaul, throttle body replacement or if high emissions are determined by inspection.

Because of sealed idle mixture needles, the idle mixture checking proce-



A. Bend Here  
B. Plug Gage  
Light duty emission vehicles choke coil lever adjustment



# 1 CHEVROLET/GMC

dures requires artificial enrichment by adding propane. Adjusting mixture by other than the following method may violate government regulations.

1. Set the parking brake and block the drive wheels. Start the engine and allow it to reach normal operating temperature. Turn air conditioning off, if equipped.

2. Disconnect and plug the hoses as indicated by the underhood emission control label.

3. Connect a tachometer to the engine according to manufacturers instructions.

4. Disconnect the vacuum advance and set the timing according to the emission control label. Reconnect the vacuum advance hose.

5. Set the carburetor idle speed to specification.

6. Disconnect the crankcase ventilation tube from the air cleaner assembly.

7. Insert the propane enrichment tool hose with the rubber stopper into the crankcase ventilation tube opening in the air cleaner. The propane cartridge must be kept in a vertical position.

8. With the engine idling in drive (neutral for manual transmissions), slowly open the propane control valve while pressing the button. Continue to add propane until the engine speed drops due to over richness.

9. If the enriched idle speed is within the enriched idle specification, the mixture is correct. Go to Step 18.

10. If the enriched idle speed is not within specification, remove the idle mixture needles:

a. Remove the carburetor from the engine.

b. Invert the carburetor and drain the fuel.

c. Place the carburetor onto a holding fixture.

d. Using a hacksaw or other suitable tool, make two parallel cuts in the throttle body, one on each side of the locator point by each idle mixture needle plug. Cut down to the steel plug, but not more than  $\frac{1}{8}$  in. beyond the locator point.

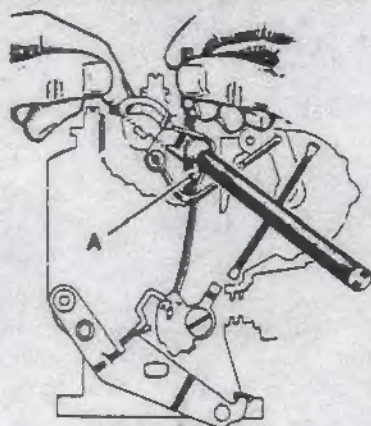
e. Place a flat punch at a point near the ends of the saw marks. Hold the punch at a 45° angle and drive it into the throttle body until the casting brakes away, exposing the steel plug.

f. Hold a center punch vertically and drive it into the steel plug. Remove the plug from the casing and all loose particles.

g. Repeat the procedure for the other plug.

11. Install the carburetor on the engine.

12. Using tool J-29030-B or equivalent, lightly seat the mixture needles,



A. Bend rod here to adjust

Light duty emission vehicles choke rod adjustment

then back out equally, just enough to run the engine.

13. Place the transmission in drive (automatic) or neutral (manual).

14. Back each needle out (richen  $\frac{1}{8}$  turn at a time) until maximum idle speed is obtained. Set the idle speed to the enriched idle specification.

15. Turn each mixture needle ( $\frac{1}{8}$  turn at a time) until idle speed reaches specification.

16. Recheck the enriched speed using the propane method. If not within specification, repeat the procedure from Step 12.

17. After all adjustments are made, seal the idle mixture needles using RTV sealer or equivalent.

18. Check and adjust the fast idle, if necessary.

19. Turn the engine off. Remove the propane tool. Connect the crankcase ventilation tube. Unplug and reconnect any vacuum hoses that were removed. Install the air cleaner.

## Idle Mixture Heavy Duty Emission Vehicles

Idle mixture needles were preset and sealed at the factory. Idle mixture should only be adjusted during major carburetor overhaul, throttle body replacement or if high emissions are determined by inspection.

This adjustment should be performed with the engine at normal operating temperature, parking brake engaged, transmission in Park or Neutral and the drive wheels blocked.

1. Remove the air cleaner.

2. Remove the carburetor from the vehicle and place in a suitable holding fixture. Using a hacksaw or other suitable tool, make two parallel cuts in the throttle body, one on each side of the locator point by each idle mixture needle plug. Cut down to the steel plug, but not more than  $\frac{1}{8}$  in. beyond the locator point.

3. Place a flat punch at a point near the ends of the saw marks. Hold the punch at a 45° angle and drive it into the throttle body until the casting brakes away, exposing the steel plug.

4. Hold a center punch vertically and drive it into the steel plug. Remove the plug from the casing and all loose particles. Repeat the procedure for the other plug.

5. Install the carburetor on the engine. Connect a vacuum gauge and tachometer to the engine according to manufacturers instructions. As a preliminary adjustment, lightly seat each mixture needle and back it out two turns.

6. Adjust the idle speed screw to the idle speed specification. Engine should be running with the choke wide open and the transmission in neutral.

7. Adjust each idle mixture needle to obtain the highest rpm. Repeat until the best idle is obtained. Reset the curb idle speed, if necessary.

8. After completing adjustments, seal the idle mixture needles using RTV sealant or equivalent.

9. Check and adjust, if necessary, the fast idle speed. Remove all gauges and reconnect any removed vacuum lines. Turn off engine.

## Fuel Injection RELIEVE PRESSURE

Fuel system pressure must be relieved before disconnecting any fuel lines. Release fuel system pressure at the test connection using a suitable pressure gauge with a pressure bleed valve. Take precautions to avoid the risk of fire whenever working on or around any open fuel system.

### Quick Disconnect Fitting

1. Relieve the fuel system pressure. Separate the quick connect fuel line tubes at the inner fender panel by squeezing the two retaining tabs against the fuel line, then pulling the tube and retainer from the fitting.

2. Remove the two O-rings and the spacer from the fitting. This can be accomplished by using a heavy piece of wire bent into an L-shape.

3. Remove the retainer from the fuel tube and discard the O-rings, spacer and retainer.

4. Install the new retainer assembly by pushing it into the quick connect fitting until it clicks.

5. Grasp the disposable plastic plug and remove it from the replacement fitting. By removing only the plastic plug, the O-rings, spacer and retainer will remain in the fitting.

6. Push the fuel line into the fitting until a click is heard and the connection is complete. Give the fuel line con-



## FUEL SYSTEM

### Carburetor

#### REMOVAL & INSTALLATION

1. Disconnect the negative battery cable. Remove the air cleaner assembly.
2. Remove the necessary components in order to gain access to the carburetor retaining bolts. Disconnect and plug the fuel line. Disconnect all electrical connectors, as required.
3. Disconnect the accelerator linkage. Disconnect the automatic transmission linkage, as required.
4. Remove the carburetor retaining bolts. Remove the carburetor from the vehicle.
5. Installation is the reverse of the removal procedure. Be sure to use a new carburetor base gasket.

### Idle Speed And Mixture

#### ADJUSTMENT

##### 1982 Vehicles

**NOTE:** Idle mixture screws on these carburetors are sealed with plugs or dowel pins. A mixture adjustment must be undertaken only when the carburetor is overhauled, the throttle body replaced, or the engine does not meet required emission standards.

##### EXCEPT SIX CYLINDER ENGINE

1. Position the transmission selector lever in neutral (manual transmission) or drive (automatic transmission).
2. Properly connect a tachometer to the engine. Start the engine and allow it to reach normal operating temperature.
3. If the idle is not within specification, turn the curb idle adjustment screw to obtain specified curb idle rpm.
4. Engines using the 2SE, E2SE or 2150 carburetor, turn the nut on the solenoid plunger or the hex screw on the solenoid carriage to obtain specified idle rpm. Tighten the locknut, if equipped.
5. Disconnect the solenoid wire connector. Adjust the curb idle screw to obtain 500 rpm idle speed. Connect the solenoid wire connector.
6. If equipped with a 2150 carburetor, place the throttle at the curb idle position, fully depress the dashpot

stem and measure the clearance between the stem and the throttle lever. Clearance should be 0.032 in. Adjust it by loosening the locknut and turning the dashpot.

##### SIX CYLINDER ENGINE

1. Position the transmission selector lever in neutral (manual transmission) or drive (automatic transmission).
2. Properly connect a tachometer to the engine. Start the engine and allow it to reach normal operating temperature.
3. If the idle is not within specification, turn the curb idle adjustment screw to obtain specified curb idle rpm.
4. Disconnect the vacuum hose from the vacuum actuator and holding solenoid wire connector. Adjust the curb idle speed adjustment screw to specification, as required.
5. Apply a direct source of vacuum to the vacuum actuator. Turn the vacuum actuator adjustment screw on the throttle lever until the specified rpm is obtained (900 rpm for manual transmission, and 800 rpm for automatic transmission).
6. Disconnect the manifold vacuum source from vacuum actuator. With a jumper wire apply battery voltage to energize the holding solenoid. Turn the air condition on, if equipped.
7. The throttle must be opened manually to allow the solvac throttle positioner to be extended. With the solvac throttle positioner extended, idle speed should be 650 rpm for automatic transmission vehicles and 750 rpm for manual transmission vehicles.
8. If the idle speed is not within specification, adjust the solvac to obtain the proper rpm. Remove the jumper wire from the solvac holding solenoid wire connector. Connect the solvac holding solenoid wire connector. Connect the original hose to vacuum actuator.

##### 1983-88 Vehicles - Idle Speed

**NOTE:** The idle speed adjustments for the 2.5L TBI and 4.0L MPI engines are controlled by the electronic control unit. The idle speed is not adjustable on these engines.

##### 4-150 (2.5L) ENGINE WITH YFA CARBURETOR, TRC (ANTI-DIESEL) AND CEC SYSTEM

The TRC (anti-diesel) adjustment screw is statically set at  $\frac{3}{4}$  of turn from the throttle valve closed position during the factory assembly and does not normally require readjustment. Should this adjustment be required, turn the adjustment screw counter-

clockwise to the throttle plate closed position and then turn the screw clockwise  $\frac{1}{4}$  turn.

To adjust the solovac actuator, proceed as follows;

1. Connect a tachometer to the ignition coil tach wire connector.
2. Place the transmission in the neutral position and depress the parking brake.
3. Start the engine and allow it to reach normal operating temperature.
4. Connect an external vacuum source to the solovac vacuum actuator and apply 10-15 in. Hg. Plug the engine vacuum hose.
5. Adjust the vacuum actuator to specification.
6. Remove the vacuum source from the vacuum actuator and retain the plug in the vacuum hose from the engine.
7. Adjust the curb idle speed to specification.
8. Stop the engine and connect the engine vacuum hose to the vacuum actuator.
9. Remove the tachometer from the engine.

##### 5-258 (4.2L) ENGINE WITH MODEL BBD CARBURETOR AND CEC SYSTEM

1. Run the engine until normal operating temperature is reached. Connect a tachometer to the ignition coil negative terminal. The carburetor choke and intake manifold heater must be off. This occurs when the engine coolant heats to approximately 160°F.
2. Remove the vacuum hose to the solovac vacuum actuator unit. Plug the vacuum hose. Disconnect the holding solenoid wire connector.
3. Adjust the curb idle speed screw to specification.
4. Apply a direct source of vacuum to the vacuum actuator, using a hand vacuum pump or its equivalent. When the solovac throttle positioner is fully extended, turn the vacuum actuator adjustment screw on the throttler lever until the specified engine rpm is obtained. Disconnect the vacuum source from the vacuum actuator.
5. With a jumper wire, apply battery voltage to energize the holding solenoid. The holding wire connector can be installed and either the rear window defroster or the air conditioner (with the compressor clutch wire disconnected) can be turned on to energize the holding solenoid.
6. Hold the throttle open manually to allow the throttle positioner to fully extend. Without the vacuum actuator, the throttle must be opened manually to allow the solovac throttle positioner to fully extend.



7. If the holding solenoid idle speed is not within specifications, adjust the idle using the 1/4 in. hexheaded adjustment screw on the end of the solevac unit.

8. Disconnect the jumper wire from the solevac solenoid wire connector, if used. Connect the wire connector to the solevac unit, if not connected. Install the original vacuum hose to the vacuum actuator.

9. Remove the tachometer and if disconnected, connect the compressor clutch wire.

## V6-173 (2.8L) ENGINE WITH 2SE CARBURETOR

1. Connect a tachometer to the ignition coil negative terminal or to the pigtail wire connector above the heater blower motor.

2. Disconnect the plug the vacuum hose at the distributor vacuum advance.

3. If necessary, adjust the ignition timing with the engine speed at or below specifications.

4. Reconnect the vacuum hose to the distributor vacuum advance unit.

5. Disconnect the deceleration valve hose and canister purge hose. Plug the hose and remove the air cleaner assembly.

6. If equipped with air conditioning, turn the control switch to the ON position and open the throttle momentarily to insure the solenoid armature is fully extended. Adjust the solenoid idle speed adjusting screw to obtain the specified engine curb idle speed rpm. Turn the air condition control switch to the OFF position.

7. If not equipped with air conditioning, adjust the engine idle speed rpm with the solenoid idle speed adjusting screw. Disconnect the solenoid wire and adjust the curb idle.

8. Install the air cleaner assembly. Connect all hoses and other connections.

## V6-173 (2.8L) ENGINE WITH E2SE CARBURETOR

**NOTE:** Some 1985-88 California models with the V6 engine, are equipped with a 2200 hour engine timer. The timer activates a solenoid to control operation of the carburetor secondary vacuum brake after 2200 hours of vehicle operation. The timer is not a serviceable component and must not be disassembled. In the event of a timer malfunction, the complete engine wiring harness must be replaced.

1. Connect a tachometer to the ignition system. Start the engine and operate to normal operating temperature.
2. Turn off all accessories. Position

manual transmission vehicles in neutral and the automatic transmission vehicles in drive with the parking brake locked and the wheels chocked.

3. Adjust the curb idle speed adjusting screw to obtain the specified rpm of 700.

4. Disconnect the vacuum hose from the idle kick actuator and connect an outside vacuum source to the actuator. Apply 15 in. Hg. of vacuum to the actuator.

5. Adjust the actuator hexhead adjustment screw to 1200 rpm with the selector lever in the neutral position.

6. Stop the engine, remove the tachometer and vacuum pump. Install the vacuum hose to the actuator.

## V6-360 (5.9L) ENGINE WITH 2150 CARBURETOR

**NOTE:** If the vehicle is equipped with automatic transmission, lock the parking brake, chock the wheels and place the selector lever in drive before adjusting the idle speed.

1. Connect a tachometer to the ignition coil negative terminal.

2. Start the engine and allow it to reach normal operating temperature.

3. Turn the hexhead adjustment screw on the solenoid carriage to obtain the correct engine speed.

4. Disconnect the solenoid wire connector and adjust the curb idle speed screw to specification.

5. Reconnect the solenoid wire connector and stop the engine.

6. If equipped with a dashpot, position the throttle at the curb idle position and depress the dashpot stem.

7. Measure the clearance between the stem and the throttle lever. A clearance of 0.032 in. should exist.

8. Adjust the clearance as required by loosening the locknut and turning the dashpot until the correct clearance is obtained. Tighten the dashpot locknut.

## 1983-88 Vehicles—Idle Mixture

### 4-150 (2.5L) ENGINE WITH YFA CARBURETOR AND CEC SYSTEM

The idle mixture is preset at the time of manufacture and should normally not require readjustment. To prevent easy access to the idle mixture screw, a tamper resistant plug is set into the carburetor assembly to cover the screw. Should adjustment be required due to system diagnosis, contamination, replacement of components or tampering, the following procedure may be used to bring the adjustment into compliance with specifications.

1. Connect a tachometer to the tach terminal of the ignition coil wire connector and a dwell meter to the mix-

ture solenoid test terminals in the diagnosis connector (D2-14 and D2-7) and adjust the dwell meter to the 6 cylinder scale.

2. If the idle mixture screw tamper resistant plug has not been removed, the carburetor must be removed from the engine for access to the plug. With the carburetor off the engine, invert the carburetor and place it in a suitable holding device and remove the plug by drilling a 1/8 in. hole in the center, installing a self tapping screw and pulling the plug from the carburetor.

3. Reinstall the carburetor on the engine, connect all lines and wires.

4. Place the transmission in the neutral position and apply the parking brake.

5. Disconnect and plug the canister purge vacuum hose at the charcoal canister.

6. Start the engine and operate at fast idle speed to bring the engine and coolant to normal operating temperature, thus allowing the CEC (feedback) system to operate in the closed loop mode of operation.

7. Return the engine to idle speed and adjust the carburetor for an idle speed 700 rpm for automatic transmission vehicles in drive and 750 rpm in neutral for manual transmission vehicles.

8. Adjust the idle mixture screw to obtain an average dwell reading of between 25 and 35 degrees, with 30 degrees preferred.

9. If the dwell is too low, turn the idle mixture screw counterclockwise. If the dwell is too high, turn the idle mixture screw clockwise. Allow time for the system to react and stabilize after each movement of the adjusting screw. The feedback system is very sensitive to adjustments.

10. Observe the final dwell indication with the adjusting tool removed. If the specified dwell cannot be obtained by adjustment, inspect the carburetor idle circuits for air leaks, restrictions and etc. Do any necessary repairs.

11. When the adjustment is complete, connect the canister purge hose and adjust the idle speed to specifications.

12. Stop the engine and remove the tachometer and dwell meter. Plug the idle mixture adjusting screw openings. Install the gasket and the air cleaner assembly on the carburetor.

### 6-258 (4.2L) ENGINE WITH BBD CARBURETOR AND CEC SYSTEM

The idle mixture adjustment should only be performed if the adjustment screws were removed during a carburetor overhaul procedure. When the carburetor is mounted to the engine, it must be removed to gain access to the



dowel pin locations, whose removal must be accomplished before any adjustment of the mixture screws can be made.

1. Connect a tachometer to the engine. Run the engine until normal operating temperature is reached.

2. Set the parking brake firmly and chock the wheels. Position the gear selector in the neutral for manual transmission and in drive for automatic transmission. Adjust the idle speed.

3. Adjust the idle mixture screws clockwise (lean) until a loss of engine rpm is noted. Idle drop specification is 50 rpm for both automatic and manual transmission.

4. Turn the idle mixture screws counterclockwise (rich) until the highest engine rpm indication is obtained.

**NOTE:** Do not turn the screws any further than the point at which the highest engine rpm is first obtained. This is referred to as best lean mixture. The engine idle speed will increase above the curb idle speed by an amount that corresponds approximately to the idle drop specifications listed on the Emission Information Label.

5. Turn the mixture screws clockwise (lean) to obtain the specified drop in engine rpm. Turn both mixture screws in small, equal amounts until the specified idle drop is achieved.

6. If the final engine rpm differs more than 30 rpm plus or minus from the original curb idle rpm, adjust the curb idle speed to specifications and repeat the mixture adjustment procedure.

7. Install the dowel pins after completing the idle mixture adjustment. Use care not to disturb the mixture screw positions. It is necessary to remove the carburetor to gain access to the dowel pin locations. After the carburetor has been reinstalled, again check the idle speed specifications and correct as required.

#### V6-173 (2.8L) ENGINE WITH E2SE CARBURETOR (FEEDBACK TYPE)

1. Remove the carburetor from the engine and remove the tamper resistant plug in order to gain access to the idle mixture adjusting screw.

2. Modify special Kent Moore tool J-29030-B or its equivalent, by grinding  $\frac{1}{8}$  in off the rear and  $\frac{1}{4}$  in off the front of the tool. Place the modified tool onto the idle mixture adjusting screw.

3. Turn the idle mixture screw in until it is lightly seated and back out four turns. If the seal in the air horn concealing the idle air bleed has been removed, replace the air horn. If the seal is still in place, do not remove the seal.

4. Remove the vent stack screen assembly to gain access to the lean mixture screw.

5. Turn the lean mixture screw in until lightly bottomed and then back out  $2\frac{1}{2}$  turns. Some resistance should be felt. If not, remove the screw and inspect for the presence of the spring.

6. Install the carburetor on the engine with the modified tool installed on the mixture adjusting screw. Do not install the air cleaner and gasket.

7. Disconnect the bowl vent line at the carburetor, disconnect the EGR valve hose and the canister purge hose at the carburetor. Cap the carburetor ports.

8. Refer to the vehicle emission control information label diagram, located under the vehicle hood, and locate the hose from port 'D' on the carburetor to the temperature sensor and the secondary vacuum break thermal vacuum switch.

9. Disconnect the hose at the temperature sensor on the air cleanser and plug the hose.

10. Connect a dwell meter positive probe to the mixture control solenoid dwell test wire with a green connection.

11. Connect the negative probe to ground and set the meter at the 6 cylinder scale position.

12. Connect a tachometer to the ignition system, set the parking brake and chock the wheels.

13. Place the transmission in park for automatic or neutral for manual.

14. Start and operate the engine until normal operating temperature is reached and the electronic engine control system is in the closed loop mode of operation.

15. Operate the engine at 3000 rpm and adjust the lean mixture screw slowly in small increments, allowing time for the dwell to stabilize after turning the screw to obtain an average dwell of 35 degrees.

16. If the dwell is too low, back the screw out and if too high, turn the screw in. If unable to adjust to specifications, inspect the main metering system for leaks, restriction, etc.

17. Return the engine to idle speed. Allow the engine to stabilize before the dwell is recorded.

**NOTE:** The mixture control solenoid dwell is an indication of the ratio of ON to OFF time. The dwell of the mixture control solenoid is used to determine the calibration and is sensitive to changes in the fuel mixture caused by heat, air leaks, etc. While the engine is idling, it is normal for the dwell to increase and decrease fairly constant over a relatively narrow range, such as

5 degrees. However, it may occasionally vary as much as 10-15 degrees momentarily because of temporary mixture changes. The dwell specified is the average of the most constant variations. The engine must be allowed to stabilize its self for a few minutes after returning the engine to idle in order to obtain a correct average.

18. Adjust the idle mixture screw with the modified tool J-29030-A or its equivalent, to obtain an average dwell of 25 degrees. If the dwell is too high, turn the screw in and if the dwell is too low, back the screw out. Allow time for the dwell to stabilize after each adjustment, because the adjustment is very sensitive. If unable to adjust to specifications, check for idle system air or vacuum leaks and restrictions.

19. Disconnect the mixture control solenoid and check for and engine speed change of at least 50 rpm. If the rpm does not change enough, inspect the idle air bleed circuit for restrictions, leaks, etc.

20. Increase the engine speed to 3000 rpm and operate for a few minutes. Note the dwell which should be varying with an average indications of 35 degrees.

21. If the average dwell is not at 25 degrees, adjust the lean mixture screw.

22. After adjusting the lean mixture screw, adjust the idle mixture screw to obtain 25 degrees dwell.

23. If at an average dwell of 25 degrees, remove the carburetor from the engine, remove the modified tool J-29030-A or equivalent from the idle mixture screw and seal the access hole.

24. Install the carburetor, connect all disconnected components and install the vent screen. Verify the idle speed is within specifications.

#### V8-360 (5.9L) ENGINE WITH 2150 CARBURETOR

**NOTE:** The idle mixture adjustment screws are concealed by tamper resistant caps. The idle mixture should be adjusted only if the mixture adjustment screws were removed or altered during major carburetor overhaul or tampering.

1. Connect a tachometer to the engine.

2. Start the engine and allow it to reach normal operating temperature.

3. Set the parking brake and chock the wheels. Position the automatic transmission in the drive detent.

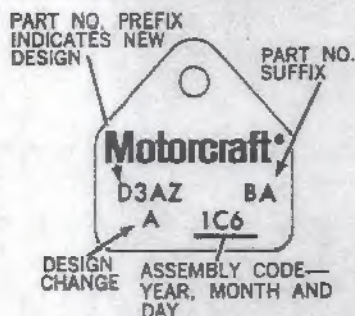
4. Be sure choke is completely off and the idle speed is set to specifications.



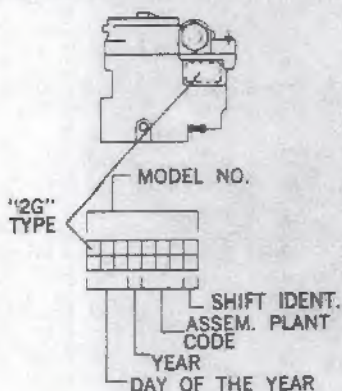
# 15 CARBURETOR OVERHAUL

## Carburetor Identification

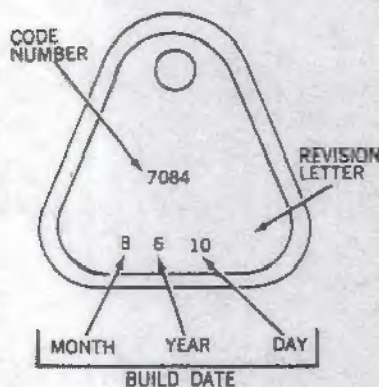
All carburetors are identified by code numbers, either stamped on the attaching flange side, the main body or on a metal tag retained by a bowl cover screw. This identification number is important in order to obtain the correct carburetor replacement or parts and to properly adjust the carburetor when matched to a specific engine.



Motorcraft carburetor identification tag—Ford models



Rochester two barrel carburetor identification tag—typical

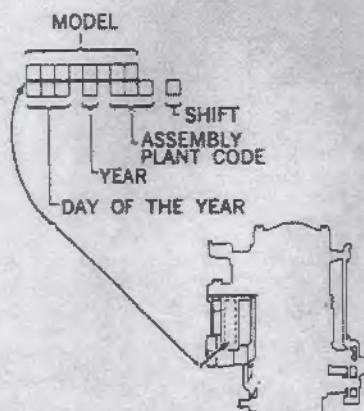


Carter carburetor identification tag—typical

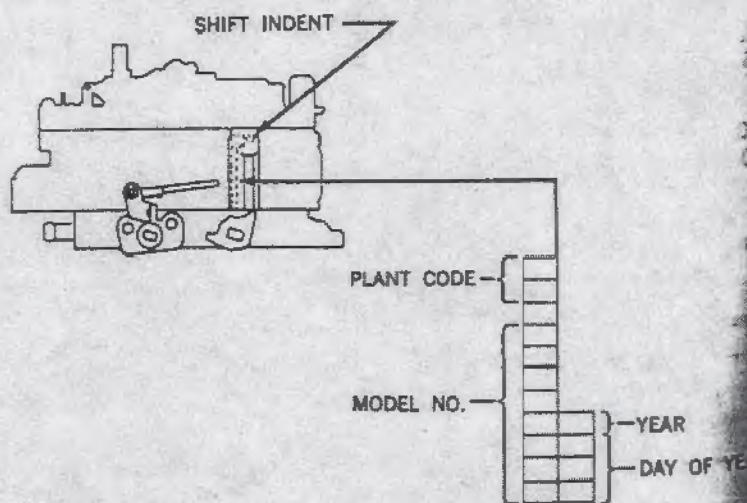
## Special Tools

### Domestic Models

An angle degree tool is recommended by Rochester Products Division for use to confirm adjustments to the choke valve and related linkages on late model two and four barrel carburetors in place of the plug type gauges. Decimal and degree conversion charts are provided for use with the angle degree tool. To use the angle gauge, rotate the degree scale until zero (0) is opposite the pointer. With the choke valve completely closed, place the gauge magnet squarely on top of the choke valve and rotate the bubble until it is centered. Make the necessary adjustments to have the choke valve at the specified degree angle opening as read from the degree angle tool. The carburetor may be off the engine for adjustments, but make sure the carburetor is held firmly during the use of the angle gauge.



Rochester one barrel identification tag—typical

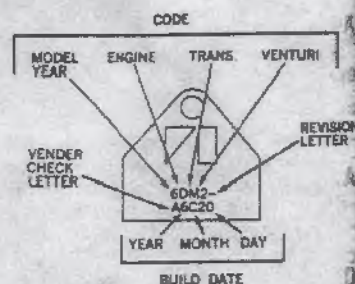


Rochester four barrel identification tag—typical

A variety of other special adjustment tools may be necessary during the overhaul of different carburetors covered in this section. When required, the tools are illustrated and tool numbers given for reference. Most carburetor overhaul kits contain the float level gauges and specifications necessary for complete rebuilding, and if specifications differ from those given in the following charts, use the values listed in the overhaul instructions with a specific kit. Before beginning any overhaul procedures, read through each section to make sure all required special tools are on hand in order to complete the repair.

## Carburetor Overhaul Tips

When the carburetor is disassembled, wash all parts (except diaphragms, electric choke units, pump plunger, and any other plastic, leather, fiber, or rubber parts) in clean carburetor solvent. Do not leave parts in the solvent any longer than is necessary to suffi-



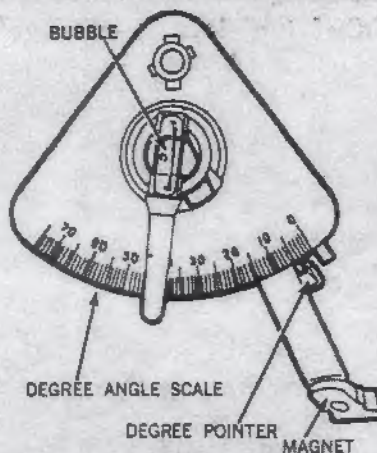
Motorcraft carburetor identification tag—Jeep models



ciently loosen the deposits. Excessive cleaning may remove the special finish from the float bowl and choke valve bodies, leaving these parts unfit for service. Rinse all parts in clean solvent and blow them dry with compressed air or allow them to air dry. Wipe clean all cork, plastic, leather, and fiber parts with a clean, lint-free cloth.

Blow out all passages and jets with compressed air and be sure that there are no restrictions or blockages. Never use wire or similar tools to clean jets, fuel passages, or air bleeds. Clean all jets and valves separately to avoid accidental interchange. Check all parts for wear or damage. If wear or damage is found, replace the defective parts. Especially check the following:

1. Check the float needle and seat for wear. If wear is found, replace the complete assembly.
2. Check the float hinge pin for wear and the float(s) for dents or distortion. Replace the float if fuel has leaked into it.
3. Check the throttle and choke shaft bores for wear or an out-of-round condition. Damage or wear to the throttle arm, shaft, or shaft bore will often require replacement of the throttle body. These parts require a close tolerance of fit. Wear may allow air leakage, which could affect starting and idling.



Angle Degree Tool—typical

**NOTE:** Throttle shafts and bushings are not included in overhaul kits. They can be purchased separately.

4. Inspect the idle mixture adjusting needles for burrs or grooves. Any such condition requires replacement of the needle, since you will not be able to obtain a satisfactory idle.
5. Test the accelerator pump check valves. They should pass air one way but not the other. Test for proper seat-

ing by blowing and sucking on the valve. Replace the valve if necessary. If the valve is satisfactory, wash the valve again to remove breath moisture.

6. Check the bowl cover for warped surfaces with a straight edge.

7. Closely inspect the valves and seats for wear and damage, replacing as necessary.

8. After the carburetor is assembled, check the choke valve for freedom of operation.

Carburetor overhaul kits are recommended for each overhaul. These kits contain all gaskets and new parts to replace those that deteriorate most rapidly. Failure to replace all parts supplied with the kit (especially gaskets) can result in poor performance later.

After cleaning and checking all components, reassemble the carburetor, using new parts and referring to the exploded view. When reassembling, make sure that all screws and jets are tight in their seats, but do not overtighten as the tips will be distorted. Tighten all screws gradually, in rotation. Do not tighten needle valves into their seats. Uneven jetting will result. Always use new gaskets. Be sure to adjust the float level, following the instructions contained in the rebuilding kit, when reassembling.

## CHEVROLET/ GMC

### Rochester Models

**NOTE:** Refer to the individual truck section for idle speed and idle mixture adjustments, using the propane enrichment procedure on non-electronic controlled engine carburetors and with the use of a dwellmeter on the electronic controlled carburetor equipped engines.

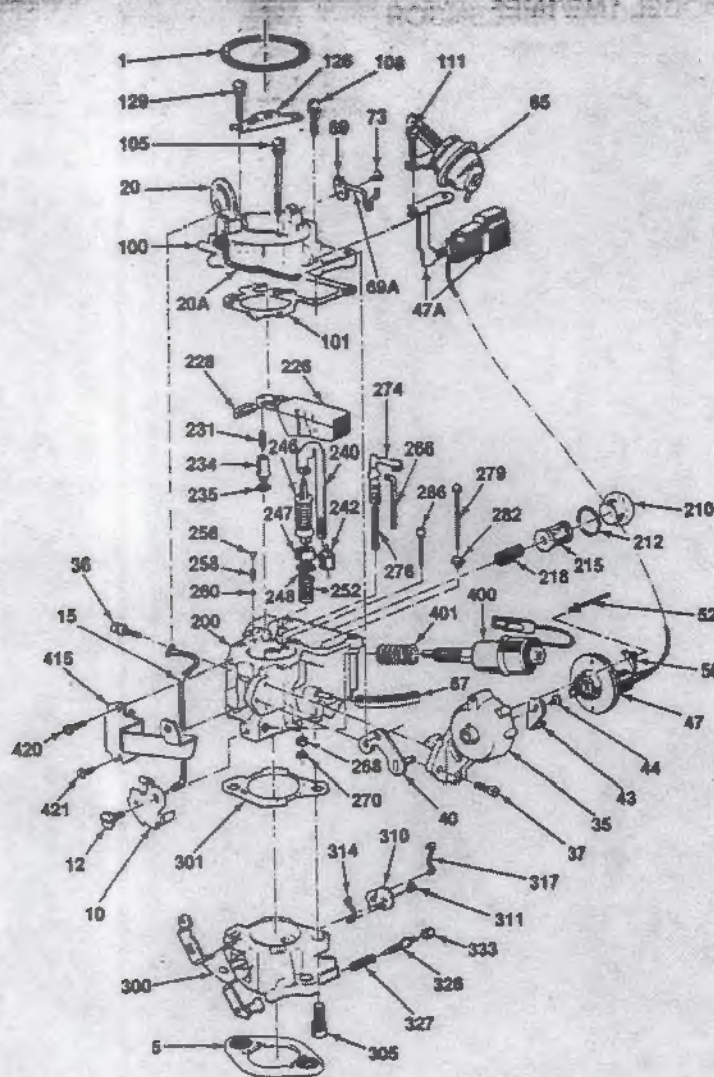
### ROCHESTER MODEL 1ME/1MEF

(All measurements in inches)

Year	Carburetor Number	Float Level	Choke Unloader Setting	Choke Setting	Fast Idle Speed (rpm)	Metering Rod Setting	Fast Idle Cam 2nd Stop	Choke Vacuum Break
1982	17081009	11/32	.520	①	②	.090	.275	.400
	17081309	11/32	.520	①	②	.090	.275	.400
	17081329	11/32	.520	①	②	.090	.275	.400
1983	17081009	11/32	.520	①	②	.090	.275	.400
	17081309	11/32	.520	①	②	.090	.275	.400
	17081329	11/32	.520	①	②	.090	.275	.400



# 15 CARBURETOR OVERHAUL



1. Gasket—air cleaner
5. Gasket—flange
10. Cam—fast idle
12. Screw—fast idle cam attaching
15. Link—fast idle cam
20. Choke shaft, lever & link assembly
- 20A. Link—choke
35. Choke housing & bearing assembly
36. Screw assembly—choke housing attaching
37. Screw—choke housing attaching
40. Choke shaft & lever assembly
43. Lever—choke stat
44. Screw—stat lever attaching
47. Electric choke cover & stat assembly
- 47A. Connector & bracket assembly
50. Retainer—choke cover
52. Rivet—choke cover attaching
65. Vacuum break assembly—bowl side
67. Hose—vacuum break
69. Vacuum break lever & link assembly
- 69A. Link—vacuum break
73. Screw—lever attaching
100. Air horn assembly
101. Gasket—air horn to float bowl
105. Screw assembly—air horn to float bowl (long)
108. Screw assembly—air horn to float bowl
111. Screw—air horn to float bowl (countersunk)
128. Bracket—air cleaner
129. Screw assembly—air cleaner bracket attaching
200. Float bowl assembly
210. Nut—fuel inlet
212. Gasket—fuel inlet nut
215. Filter—fuel inlet
218. Spring—fuel filter
226. Float
228. Hinge pin
231. Needle
234. Seat—float
235. Gasket—float
240. Rod—pump
242. Seal—pump
246. Pump assembly
247. Cup—pump
248. Spring—pump
252. Spring—pump
256. Guide—pump discharge spring
260. Ball—pump discharge
266. Rod—power pump
268. Seal—power pump
270. Retainer—power pump rod seal
274. Power valve plate assembly
276. Spring—power valve
279. Metering rod & spring assembly
282. Jet—main metering
286. Idle tube assembly
300. Throttle body assembly
301. Gasket—float bowl to throttle body
305. Screw assembly—float bowl to throttle body
310. Lever—pump & power rod
311. Screw—pump lever attaching
314. Link—power rod
317. Link—pump
326. Needle—idle mixture
327. Spring—idle mixture needle
332. Limiter—idle mixture needle
333. Plug—idle mixture needle
400. Solenoid—idle stop
401. Spring—idle stop solenoid
415. Bracket—throttle return spring anchor
420. Screw—bracket attaching (countersunk)
421. Screw—bracket attaching

Exploded view of the Rochester 1MEF carburetor—1966-67 models

## ROCHESTER MODEL 2SE Chevrolet/GMC

(All measurements in inches or degrees)

Year	Carburetor Number	Float Level	Choke Coil Lever	Choke Rod °	Primary Vacuum Break	Secondary Vacuum Break	Air Valve Rod	Choke Unloader
1962	17082334	3/16	.085	15°	26°	38°	1°	42°
	17082335	3/16	.085	15°	26°	38°	1°	42°
	17082336	3/16	.085	15°	26°	38°	1°	42°
	17082337	3/16	.085	15°	26°	38°	1°	42°
	17082338	3/16	.085	15°	26°	38°	1°	42°
	17082339	3/16	.085	15°	26°	38°	1°	42°
	17082341	3/16	.085	15°	30°	37°	1°	42°
	17082342	3/16	.085	15°	30°	37°	1°	42°



# CARBURETOR OVERHAUL 15

## ROCHESTER MODEL 2SE Chevrolet/GMC

(All measurements in inches or degrees)

Year	Carburetor Number	Float Level	Choke Coil Lever	Choke Rod ①	Primary Vacuum Break	Secondary Vacuum Break	Air Valve Rod	Choke Unloader
1982	17082344	3/16	.085	15°	30°	37°	1°	42°
	17082345	3/16	.085	15°	30°	37°	1°	42°
	17082431	3/16	.085	15°	24°	38°	1°	42°
	17082433	3/16	.085	15°	24°	38°	1°	42°
	17082480	3/16	.085	15°	26°	38°	1°	42°
	17082481	3/16	.085	15°	26°	38°	1°	42°
	17082482	3/16	.085	15°	23°	38°	1°	42°
	17082483	3/16	.085	15°	26°	38°	1°	42°
	17082484	3/16	.085	15°	26°	38°	1°	42°
	17082485	3/16	.085	15°	26°	38°	1°	42°
	17082486	3/16	.085	15°	28°	38°	1°	42°
	17082487	3/16	.085	15°	28°	38°	1°	42°
	17082488	3/16	.085	15°	28°	38°	1°	42°
	17082489	3/16	.085	15°	28°	38°	1°	42°
	17082348	7/16	.085	22°	26°	32°	1°	40°
	17082349	7/16	.085	22°	28°	32°	1°	40°
	17082350	7/16	.085	22°	26°	32°	1°	40°
	17082351	7/16	.085	22°	28°	32°	1°	40°
	17082353	7/16	.085	22°	28°	35°	1°	30°
	17082355	7/16	.085	22°	28°	35°	1°	30°
1983	17083410	3/16	.085	15°	23°	38°	1°	42°
	17083411	3/16	.085	15°	26°	38°	1°	42°
	17083412	3/16	.085	15°	23°	38°	1°	42°
	17083413	3/16	.085	15°	26°	38°	1°	42°
	17083414	3/16	.085	15°	23°	38°	1°	42°
	17083415	3/16	.085	15°	26°	38°	1°	42°
	17083416	3/16	.085	15°	23°	38°	1°	42°
	17083417	3/16	.085	15°	26°	38°	1°	42°
	17083419	3/16	.085	15°	28°	38°	1°	42°
1983	17083421	3/16	.085	15°	26°	38°	1°	42°
	17083423	3/16	.085	15°	28°	38°	1°	42°
	17083425	3/16	.085	15°	26°	38°	1°	42°
	17083427	3/16	.085	15°	26°	38°	1°	42°
	17083429	3/16	.085	15°	28°	38°	1°	42°
	17083560	3/16	.085	15°	28°	38°	1°	42°
	17083562	3/16	.085	15°	28°	38°	1°	42°
	17083565	3/16	.085	15°	28°	38°	1°	42°
	17083569	3/16	.085	15°	28°	38°	1°	42°
	17083348	7/16	.085	22°	30°	32°	1°	40°
	17083349	7/16	.085	22°	30°	32°	1°	40°
	17083350	7/16	.085	22°	30°	32°	1°	40°
	17083351	7/16	.085	22°	30°	32°	1°	40°

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# CARBURETOR OVERHAUL

## ROCHESTER MODEL 2SE Chevrolet/GMC

(All measurements in inches or degrees)

Year	Carburetor Number	Float Level	Choke Coll Lever	Choke Rod ①	Primary Vacuum Break	Secondary Vacuum Break	Air Valve Rod	Choke Unload
1983	17083352	7/16	.085	22°	30°	35°	1°	40°
	17083353	7/16	.085	22°	30°	35°	1°	40°
	17083354	7/16	.085	22°	30°	35°	1°	40°
	17083355	7/16	.085	22°	30°	35°	1°	40°
	17083360	7/16	.085	22°	30°	32°	1°	40°
	17083361	7/16	.085	22°	28°	32°	1°	40°
	17083362	7/16	.085	22°	30°	32°	1°	40°
	17083363	7/16	.085	22°	28°	32°	1°	40°
	17083364	7/16	.085	22°	30°	35°	1°	40°
	17083365	7/16	.085	22°	30°	35°	1°	40°
	17083366	7/16	.085	22°	30°	35°	1°	40°
	17083367	7/16	.085	22°	30°	35°	1°	40°
	17083390	13/32	.085	28°	30°	35°	1°	38°
	17083391	13/32	.085	28°	30°	35°	1°	38°
	17083392	13/32	.085	28°	30°	35°	1°	38°
	17083393	13/32	.085	28°	30°	35°	1°	38°
	17083394	13/32	.085	28°	30°	35°	1°	38°
	17083395	13/32	.085	28°	30°	35°	1°	38°
	17083396	13/32	.085	28°	30°	35°	1°	38°
	17083397	13/32	.085	28°	30°	35°	1°	38°
1984	17084348	11/32	.085	22°	30°	32°	1°	40°
	17084349	11/32	.085	22°	30°	32°	1°	40°
	17084350	11/32	.085	22°	30°	32°	1°	40°
	17084351	11/32	.085	22°	30°	32°	1°	40°
	17084352	11/32	.085	22°	30°	35°	1°	40°
	17084353	11/32	.085	22°	30°	35°	1°	40°
	17084354	11/32	.085	22°	30°	35°	1°	40°
	17084355	11/32	.085	22°	30°	35°	1°	40°
	17084360	5/32	.085	22°	30°	32°	1°	40°
	17084362	5/32	.085	22°	30°	32°	1°	40°
	17084364	5/32	.085	22°	30°	35°	1°	40°
	17084366	5/32	.085	22°	30°	35°	1°	40°
	17084390	7/16	.085	28°	30°	38°	1°	38°
	17084391	7/16	.085	28°	30°	38°	1°	38°
	17084392	7/16	.085	28°	30°	38°	1°	38°
	17084393	7/16	.085	28°	30°	38°	1°	38°
	17084394	7/16	.085	28°	30°	40°	1°	38°
	17084395	7/16	.085	28°	30°	40°	1°	38°
	17084396	7/16	.085	28°	30°	40°	1°	38°
	17084397	7/16	.085	28°	30°	40°	1°	38°
	17084410	11/32	.085	15°	23°	38°	1°	42°
	17084412	11/32	.085	15°	23°	38°	1°	42°

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# CARBURETOR OVERHAUL 15

## ROCHESTER MODEL 2SE Chevrolet/GMC

(All measurements in inches or degrees)

Year	Carburetor Number	Float Level	Choke Coll Lever	Choke Rod ①	Primary Vacuum Break	Secondary Vacuum Break	Air Valve Rod	Choke Unloader
1984	17084425	11/32	.085	15°	26°	36°	1°	40°
	17084427	11/32	.085	15°	26°	36°	1°	40°
	17084560	11/32	.085	15°	24°	34°	1°	38°
	17084562	11/32	.085	15°	24°	34°	1°	38°
	17084569	11/32	.085	15°	24°	34°	1°	38°
1985	17085348	5/32	.085	22°	32°	36°	1°	40°
	17085350	5/32	.085	22°	32°	36°	1°	40°
	17085351	11/32	.085	22°	32°	36°	1°	40°
	17085352	5/32	.085	22°	30°	34°	1°	40°
	17085354	5/32	.085	22°	30°	34°	1°	40°
	17085355	11/32	.085	22°	30°	34°	1°	40°
	17085360	5/32	.085	22°	32°	36°	1°	40°
	17085362	5/32	.085	22°	32°	36°	1°	40°
	17085363	11/32	.085	22°	32°	36°	1°	40°
	17085364	5/32	.085	22°	30°	34°	1°	40°
	17085366	5/32	.085	22°	30°	34°	1°	40°
	17085367	11/32	.085	22°	30°	34°	1°	40°
	17085372	5/32	.085	22°	32°	36°	1°	40°
	17085374	5/32	.085	22°	32°	36°	1°	40°

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NOTE: Specified angle for use with angle degree tool.

① Adjust with fast idle cam on 2nd step.

## ROCHESTER MODEL E2SE Chevrolet/GMC

(All measurements in inches or degrees)

Year	Carburetor Number	Float Level	Choke Coll Lever	Choke Rod ①	Primary Vacuum Break	Secondary Vacuum Break	Air Valve Rod	Choke Unloader
1983	17083356	13/32	.085	22°	25°	35°	1°	30°
	17083357	13/32	.085	22°	25°	35°	1°	30°
	17083358	13/32	.085	22°	25°	35°	1°	30°
	17083359	13/32	.085	22°	25°	35°	1°	30°
	17083368	1/8	.085	22°	25°	35°	1°	30°
	17083370	1/8	.085	22°	25°	35°	1°	30°
	17083450	1/8	.085	28°	27°	35°	1°	45°
	17083451	1/4	.085	28°	27°	35°	1°	45°
	17083452	1/8	.085	28°	27°	35°	1°	45°
	17083453	1/4	.085	28°	27°	35°	1°	45°
	17083454	1/8	.085	28°	27°	35°	1°	45°
	17083455	1/4	.085	28°	27°	35°	1°	45°
	17083456	1/8	.085	28°	27°	35°	1°	45°
	17083630	1/4	.085	28°	27°	35°	1°	45°
	17083631	1/4	.085	28°	27°	35°	1°	45°
	17083632	1/4	.085	28°	27°	35°	1°	45°



# CARBURETOR OVERHAUL

## ROCHESTER MODEL E2SE Chevrolet/GMC

(All measurements in inches or degrees)

Year	Carburetor Number	Float Level	Choke Coil Lever	Choke Rod ①	Primary Vacuum Break	Secondary Vacuum Break	Air Valve Rod	Choke Unloader
1983	17083633	1/4	.085	28°	27°	35°	1°	45°
	17083634	1/4	.085	28°	27°	35°	1°	45°
	17083635	1/4	.085	28°	27°	35°	1°	45°
	17083636	1/4	.085	28°	27°	35°	1°	45°
	17083650	1/8	.085	28°	27°	35°	1°	45°
	17083430	11/32	.085	15°	26°	38°	1°	42°
	17083431	11/32	.085	15°	26°	38°	1°	42°
	17083434	11/32	.085	15°	26°	38°	1°	42°
	17083435	11/32	.085	15°	26°	38°	1°	42°
1984	17072683	9/32	.085	28°	25°	35°	1°	45°
	17074812	9/32	.085	28°	25°	35°	1°	45°
	17084356	9/32	.085	22°	25°	30°	1°	30°
	17084357	9/32	.085	22°	25°	30°	1°	30°
	17084358	9/32	.085	22°	25°	30°	1°	30°
	17084359	9/32	.085	22°	25°	30°	1°	30°
	17084368	1/8	.085	22°	25°	30°	1°	30°
	17084370	1/8	.085	22°	25°	30°	1°	30°
	17084430	11/32	.085	15°	26°	38°	1°	42°
	17084431	11/32	.085	15°	26°	38°	1°	42°
	17084434	11/32	.085	15°	26°	38°	1°	42°
	17084435	11/32	.085	15°	26°	38°	1°	42°
	17084452	5/32	.085	28°	25°	35°	1°	45°
	17084453	5/32	.085	28°	25°	35°	1°	45°
	17084455	5/32	.085	28°	25°	35°	1°	45°
	17084456	5/32	.085	28°	25°	35°	1°	45°
	17084458	5/32	.085	28°	25°	35°	1°	45°
	17084532	5/32	.085	28°	25°	35°	1°	45°
	17084534	5/32	.085	28°	25°	35°	1°	45°
	17084535	5/32	.085	28°	25°	35°	1°	45°
	17084537	5/32	.085	28°	25°	35°	1°	45°
	17084538	5/32	.085	28°	25°	35°	1°	45°
	17084540	5/32	.085	28°	25°	35°	1°	45°
	17084542	1/8	.085	28°	25°	35°	1°	45°
	17084632	9/32	.085	28°	25°	35°	1°	45°
	17084633	9/32	.085	28°	25°	35°	1°	45°
	17084635	9/32	.085	28°	25°	35°	1°	45°
	17084636	9/32	.085	28°	25°	35°	1°	45°
1985	17085356	4/32	.085	22°	25°	30°	1°	30°
	17085357	9/32	.085	22°	25°	30°	1°	30°
	17085358	4/32	.085	22°	25°	30°	1°	30°
	17085359	9/32	.085	22°	25°	30°	1°	30°
	17085368	4/32	.085	22°	25°	30°	1°	30°

S/D

S/D

S/D

S/D

S/D

S/D

S/D

S/D



# CARBURETOR OVERHAUL 15

1. Screw—air horn (long)  
(2)
2. Screw—air horn (large)
3. Screw—air horn (short)  
(3)

4. Screw—air horn  
(medium)
5. Vent stack assembly
6. Screw—hot idle  
compensator (2)
7. Hot idle compensator
8. Gasket—hot idle  
compensator

9. Air horn assembly
10. Gasket—air horn
11. Retainer—pump link
12. Seal—pump stem
13. Retainer—stem seal
14. Vacuum break and  
bracket assembly—  
primary
15. Screw—vacuum break  
attaching

16. Bushing—air valve—  
link
17. Retainer—air valve link
18. Hose—vacuum  
break—primary

19. Link—air valve
20. Link—fast idle cam
21. Intermediate choke  
shaft/lever link  
assembly

22. Bushing—  
intermediate choke  
shaft link
23. Retainer—  
intermediate choke  
shaft link

24. Vacuum break and  
bracket assembly—  
secondary
25. Choke cover and coil  
assembly

26. Screw—choke lever
27. Choke lever and  
contact assembly
28. Choke housing
29. Screw—choke housing  
(2)

30. Stat cover retainer kit
31. Screw—vacuum break  
attaching (2)

32. Float bowl assembly
33. Nut—fuel inlet
34. Gasket—fuel inlet nut
35. Filter—fuel inlet
36. Spring—fuel filter
37. Float assembly
38. Hinge pin—float
39. Insert—float bowl
40. Needle and seat  
assembly
41. Spring—pump return
42. Pump—assembly
43. Jet—main metering
44. Rod—main metering  
assembly
45. Ball—pump discharge
46. Spring—pump  
discharge

47. Retainer—pump  
discharge spring
48. Power piston assembly
49. Spring—power piston
50. Gasket—throttle body
51. Throttle body  
assembly
52. Pump rod
53. Clip—cam screw
54. Screw—cam
55. Spring—throttle stop  
screw
56. Screw—throttle stop
57. Idle needle and spring
58. Screw—throttle body  
attaching (4)
59. Nut—idle solenoid
60. Retainer—idle  
solenoid
61. Idle solenoid

62. Float bowl assembly
63. Nut—fuel inlet
64. Gasket—fuel inlet nut
65. Filter—fuel inlet
66. Spring—fuel filter
67. Float assembly
68. Hinge pin—float
69. Insert—float bowl
70. Needle and seat  
assembly
71. Spring—pump return
72. Pump—assembly
73. Jet—main metering
74. Rod—main metering  
assembly
75. Ball—pump discharge
76. Spring—pump  
discharge

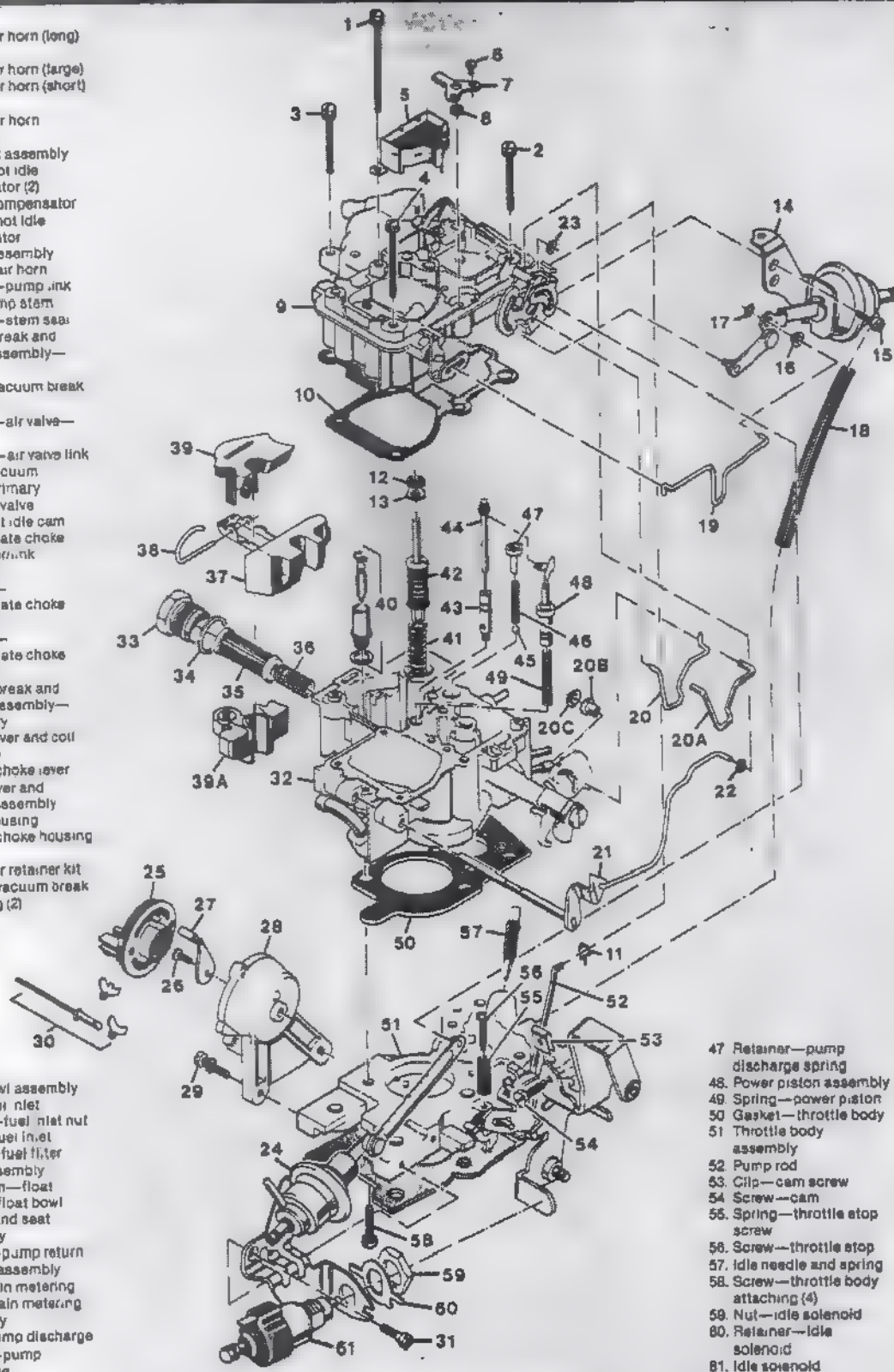
77. Retainer—pump  
discharge spring
78. Power piston assembly
79. Spring—power piston
80. Gasket—throttle body
81. Throttle body  
assembly
82. Pump rod
83. Clip—cam screw
84. Screw—cam
85. Spring—throttle stop  
screw
86. Screw—throttle stop
87. Idle needle and spring
88. Screw—throttle body  
attaching (4)
89. Nut—idle solenoid
90. Retainer—idle  
solenoid
91. Idle solenoid

92. Float bowl assembly
93. Nut—fuel inlet
94. Gasket—fuel inlet nut
95. Filter—fuel inlet
96. Spring—fuel filter
97. Float assembly
98. Hinge pin—float
99. Insert—float bowl
100. Needle and seat  
assembly
101. Spring—pump return
102. Pump—assembly
103. Jet—main metering
104. Rod—main metering  
assembly
105. Ball—pump discharge
106. Spring—pump  
discharge

107. Retainer—pump  
discharge spring
108. Power piston assembly
109. Spring—power piston
110. Gasket—throttle body
111. Throttle body  
assembly
112. Pump rod
113. Clip—cam screw
114. Screw—cam
115. Spring—throttle stop  
screw
116. Screw—throttle stop
117. Idle needle and spring
118. Screw—throttle body  
attaching (4)
119. Nut—idle solenoid
120. Retainer—idle  
solenoid
121. Idle solenoid

122. Float bowl assembly
123. Nut—fuel inlet
124. Gasket—fuel inlet nut
125. Filter—fuel inlet
126. Spring—fuel filter
127. Float assembly
128. Hinge pin—float
129. Insert—float bowl
130. Needle and seat  
assembly
131. Spring—pump return
132. Pump—assembly
133. Jet—main metering
134. Rod—main metering  
assembly
135. Ball—pump discharge
136. Spring—pump  
discharge

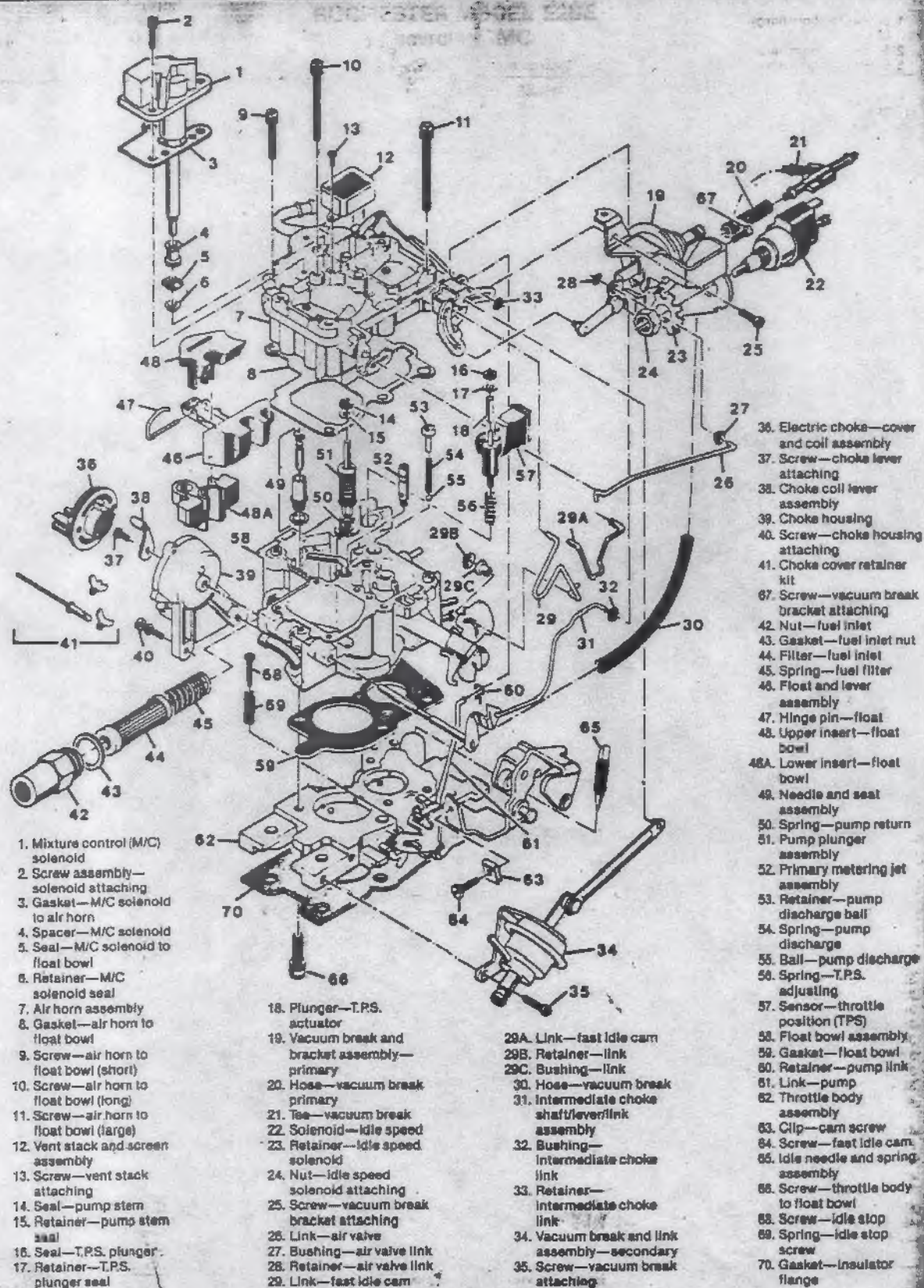
137. Retainer—pump  
discharge spring
138. Power piston assembly
139. Spring—power piston
140. Gasket—throttle body
141. Throttle body  
assembly
142. Pump rod
143. Clip—cam screw
144. Screw—cam
145. Spring—throttle stop  
screw
146. Screw—throttle stop
147. Idle needle and spring
148. Screw—throttle body  
attaching (4)
149. Nut—idle solenoid
150. Retainer—idle  
solenoid
151. Idle solenoid



Exploded view of Rochester 25E carburetor



# 15 CARBURETOR OVERHAUL



Exploded view of Rochester E2SE carburetor



# CARBURETOR OVERHAUL 15

## ROCHESTER MODEL E2SE Chevrolet/GMC

(All measurements in inches or degrees)

Year	Carburetor Number	Float Level	Choke Coil Lever	Choke Rod ①	Primary Vacuum Break	Secondary Vacuum Break	Air Valve Rod	Choke Unloader
1985	17085369	9/32	.085	22°	25°	30°	1°	30°
	17085370	4/32	.085	22°	25°	30°	1°	30°
	17085371	9/32	.085	22°	25°	30°	1°	30°
	17085452	5/32	.085	28°	25°	35°	1°	45°
	17085453	5/32	.085	28°	25°	35°	1°	45°
	17085458	5/32	.085	28°	25°	35°	1°	45°

S10  
S10  
S10

Note: Specified angle for use with angle degree tool

① All models: Lean mixture screw-2½ turns  
Idle mixture screw-4 turns

## ROCHESTER MODEL M4MC/M4ME QUADRAJET Chevrolet/GMC

(All measurements in inches or degrees)

Year	Carburetor Number	Float Level	Pump Rod Hole	Pump Rod Setting	Choke Rod ① Setting	Air Valve Rod	Vacuum Break Front	Vacuum Break Rear	Air Valve Turns	Choke Unloader	Propane Enrichment (rpm)
1982	17080212	3/8	inner	9/32	46°	.025	24°	30°	3/4	40°	②
	17080213	3/8	inner	9/32	37°	.025	23°	30°	1	40°	②
	17080215	3/8	inner	9/32	37°	.025	23°	30°	1	40°	②
	17080298	3/8	inner	9/32	37°	.025	23°	30°	1	40°	②
	17080507	3/8	inner	9/32	37°	.025	23°	30°	1	40°	②
	17080512	3/8	inner	9/32	46°	.025	24°	30°	3/4	40°	②
	17080513	3/8	inner	9/32	37°	.025	23°	30°	3/4	40°	②
	17082213	3/8	inner	9/32	37°	.025	23°	30°	1	40°	②
	17082220	13/32	inner	9/32	46°	.025	24°	34°	7/8	39°	②
	17082221	13/32	inner	9/32	46°	.025	24°	34°	7/8	39°	150
	17082222	13/32	inner	9/32	46°	.025	24°	34°	7/8	39°	50
	17082223	13/32	inner	9/32	46°	.025	24°	34°	7/8	39°	100
	17082224	13/32	inner	9/32	46°	.025	24°	34°	7/8	39°	50
	17082225	13/32	inner	9/32	46°	.025	24°	34°	7/8	39°	150
	17082226	13/32	inner	9/32	46°	.025	24°	34°	7/8	39°	50
	17082227	13/32	inner	9/32	46°	.025	24°	34°	7/8	39°	50
	17082230	13/32	inner	9/32	46°	.025	26°	36°	7/8	39°	②
	17082231	13/32	inner	9/32	46°	.025	26°	36°	7/8	39°	②
	17082234	13/32	inner	9/32	46°	.025	26°	36°	7/8	39°	②
	17082235	13/32	inner	9/32	46°	.025	26°	36°	7/8	39°	②
	17082290	13/32	inner	9/32	46°	.025	24°	34°	7/8	39°	②
	17082291	13/32	inner	9/32	46°	.025	24°	34°	7/8	39°	②
	17082292	13/32	inner	9/32	46°	.025	24°	34°	7/8	39°	②
	17082293	13/32	inner	9/32	46°	.025	24°	34°	7/8	39°	100
	17082506	13/32	inner	9/32	46°	.025	23°	36°	7/8	39°	50
	17082508	3/8	inner	9/32	46°	.025	23°	36°	7/8	39°	50
	17082513	13/32	inner	9/32	46°	.025	23°	30°	3/4	40°	②
	17082524	13/32	outer	5/16	46°	.025	25°	36°	7/8	39°	20
	17082526	13/32	outer	5/16	46°	.025	25°	36°	7/8	39°	20



# 15 CARBURETOR OVERHAUL

## ROCHESTER MODEL 2SE/E2SE

Jeep

(All measurements in inches or degrees)

Year	Carburetor Number	Float Level	Pump Stem Height	Fast ② Idle Cam	Fast Idle (rpm)	Air ① Valve Link	Primary Vacuum Break	Choke Unloader	Choke Setting
1982	17082380	.169	1.28	18°	2400	2°	21°	34°	③
	17082381	.169	1.28	18°	2400	2°	21°	34°	③
	17082389	.169	1.28	18°	2400	2°	19°	34°	③
1983	17084580	5/32	1	.085	22°	26°	32°	1°	40°
	17084581	5/32	1	.085	22°	26°	32°	1°	40°
	17084582	5/32	1	.085	22°	26°	32°	1°	40°
	17084583	5/32	1	.085	22°	26°	32°	1°	40°
	17084384	1/8	1	.085	22°	25°	30°	1°	40°
1984	17084580	5/32	1	.085	22°	26°	32°	1°	40°
	17084581	5/32	1	.085	22°	26°	32°	1°	40°
	17084582	5/32	1	.085	22°	26°	32°	1°	40°
	17084583	5/32	1	.085	22°	26°	32°	1°	40°
	17084584	1/8	1	.085	22°	25°	30°	1°	40°
1985	17084580	5/32	1	.085	22°	26°	32°	1°	40°
	17084581	5/32	1	.085	22°	26°	32°	1°	40°
	17084582	5/32	1	.085	22°	26°	32°	1°	40°
	17084583	5/32	1	.085	22°	26°	32°	1°	40°
	17084584	1/8	1	.085	22°	25°	30°	1°	40°
1986	17085380	5/32	1	.085	22°	26°	32°	1°	40°
	17085381	5/32	1	.085	22°	26°	32°	1°	40°
	17085382	5/32	1	.085	22°	26°	32°	1°	40°
	17085383	5/32	1	.085	22°	26°	32°	1°	40°
	17085384	1/8	1	.085	22°	25°	30°	1°	40°
1987-88	17084580	5/32	1	.085	22°	26°	32°	1°	40°
	17084581	5/32	1	.085	22°	26°	32°	1°	40°
	17084582	5/32	1	.085	22°	26°	32°	1°	40°
	17084583	5/32	1	.085	22°	26°	32°	1°	40°
	17084384	1/8	1	.085	22°	25°	30°	1°	40°

NOTE: Specified angle for use with angle degree tool

① Maximum degree setting

② 2nd step on cam

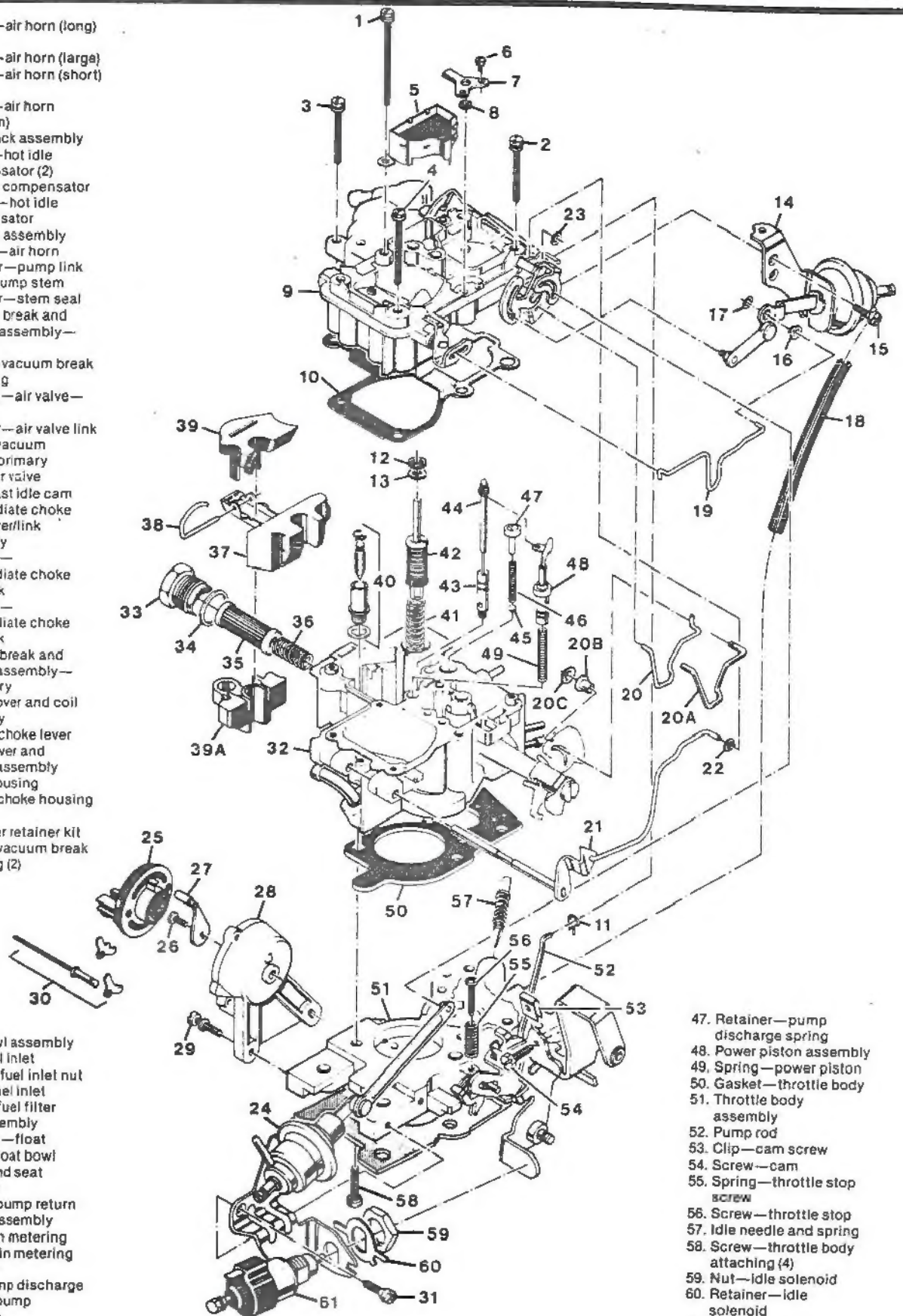
Tamper resistant—riveted cover



1. Screw—air horn (long) (2)
2. Screw—air horn (large)
3. Screw—air horn (short) (3)
4. Screw—air horn (medium)
5. Vent stack assembly
6. Screw—hot idle compensator (2)
7. Hot idle compensator
8. Gasket—hot idle compensator
9. Air horn assembly
10. Gasket—air horn
11. Retainer—pump link
12. Seal—pump stem
13. Retainer—stem seal
14. Vacuum break and bracket assembly—primary
15. Screw—vacuum break attaching
16. Bushing—air valve—link
17. Retainer—air valve link
18. Hose—vacuum break—primary
19. Link—air valve
20. Link—fast idle cam
21. Intermediate choke shaft/lever/link assembly
22. Bushing—intermediate choke shaft link
23. Retainer—intermediate choke shaft link
24. Vacuum break and bracket assembly—secondary
25. Choke cover and coil assembly
26. Screw—choke lever
27. Choke lever and contact assembly
28. Choke housing
29. Screw—choke housing (2)
30. Stat cover retainer kit
31. Screw—vacuum break attaching (2)

32. Float bowl assembly
33. Nut—fuel inlet
34. Gasket—fuel inlet nut
35. Filter—fuel inlet
36. Spring—fuel filter
37. Float assembly
38. Hinge pin—float
39. Insert—float bowl
40. Needle and seat assembly
41. Spring—pump return
42. Pump—assembly
43. Jet—main metering
44. Rod—main metering assembly
45. Ball—pump discharge
46. Spring—pump discharge

47. Retainer—pump discharge spring
48. Power piston assembly
49. Spring—power piston
50. Gasket—throttle body
51. Throttle body assembly
52. Pump rod
53. Clip—cam screw
54. Screw—cam
55. Spring—throttle stop screw
56. Screw—throttle stop
57. Idle needle and spring
58. Screw—throttle body attaching (4)
59. Nut—idle solenoid
60. Retainer—idle solenoid
61. Idle solenoid



Exploded view of Rochester 2SE carburetor